

# THE MINERAL INDUSTRY OF BURUNDI

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Burundi, which is a small country in central Africa, was a producer of columbium (niobium) and tantalum ore, gold, tin ore, and tungsten ore, most of which was designated for export in 2004 (table 1). The country also produced limestone, peat, and sand and gravel for domestic consumption. Additionally, Burundi has resources of cobalt, copper, feldspar, nickel, phosphate rock, platinum-group metals (PGM), quartzite, rare-earth elements, uranium, and vanadium.

In 2004, Burundi's gross domestic product (GDP) based on purchasing power parity amounted to about \$5.2 billion. The GDP rose by 5.5% in 2004 after falling by 1.2% in 2003. In 2002, manufacturing accounted for 8% of the GDP; construction, 4%; and mining and energy, about 1% (International Monetary Fund, 2004, p. 40; 2005b, p. 208; 2005<sup>1</sup>).

Since 1993, civil unrest has led to economic stagnation and has been an important factor in preventing development of the proposed Musongati nickel resource project. In 2004, conflict continued between the Government and the Forces Nationales de Liberation.

Argosy Minerals Inc. of Australia reimposed force majeure at the Musongati nickel deposit in August 2004 because of the continuing political instability. The company was carrying out a feasibility study for an open pit mine at Musongati that would produce 45,000 metric tons per year (t/yr) of nickel, 7,500 t/yr of cobalt, and 2,500 t/yr of copper. Moto Goldmines Ltd. of Australia (formerly Equis Ltd.) explored for cobalt, copper, and nickel at Buhoro, Bukirasazi, and Rutovu (Argosy Minerals Inc., 2004; Songore, 2004).

In the northern part of the country, Comptoirs Miniers de Burundi S.A. (COMEBU) mined deposits of columbium (niobium) and tantalum. Production of columbite-tantalite fell to 24,382 kilograms (kg) in 2003 from 72,441 kg in 2002; the decline was attributable to low world market prices for tantalum oxide and high transportation costs. In 2003, COMEBU exported 14,769 kg of columbite-tantalite; Asyst Mines, 7,663 kg; and Hamza, 1,950 kg (Songore, 2004).

Artisanal miners produced gold from alluvial deposits. Burundi Mining Corp. held an exclusive gold exploration/mining permit for the entire Province of Muyinga. Burundi's gold production increased sharply in 2003 because of high world market prices for gold. In 2003, Matchanga Ltd. exported 2,771 kg of gold, and Interbee, 83 kg (Songore, 2004).

Artisanal miners mined small amounts of tin and tungsten. In 2003, Hamza exported 19,600 kg of wolframite (tungsten ore), and Habonimana, 13,188 kg. COMEBU exported 6,167 kg of cassiterite (tin ore), and Hamza, 2,600 kg. Mining of tin and tungsten reportedly contributed to environmental damage to the forest near Murehe (Republique du Burundi, 2004; Songore, 2004).

The state-owned Office National de la Tourbe produced and distributed peat for domestic consumption. In 2004, peat production increased to 4,643 metric tons (t) from 4,580 t in 2003 (Damien Riragonya, Director General of Geology and Mines, Burundi Ministry of Energy and Mines, written commun., July 18, 2005). Resources of peat were estimated to be 36 million metric tons, most of which were located in the Akanyara Valley near Buyongwe (table 3).

Burundi has no identified resources of coal, natural gas, or petroleum. The country does not have a refinery for petroleum products; all petroleum demand was met through imports. In 2003, Burundi's petroleum imports were valued at \$30 million, or 22% of total imports (International Monetary Fund, 2005a, p. 26).

In 2004, the Governments of Burundi, the Democratic Republic of the Congo, and Rwanda discussed the rehabilitation of the Ruzizi I hydropower station. Repairs to Ruzizi I would increase capacity to 39.6 megawatts (MW) from 28.2 MW. The Governments also discussed the rehabilitation of Ruzizi II and the possible construction of Ruzizi III (Misser, 2004).

Burundi was landlocked and dependent upon its road network for external trade. The road network was damaged by the civil war. In March 2004, the World Bank approved a credit of \$51.2 million to promote the rehabilitation of damaged roads (United Nations Integrated Regional Information Networks, 2004).

## Outlook

Economic growth is expected to be 5% in 2005 and 2006 (International Monetary Fund, 2005b, p. 208). Strong GDP growth in 2005 and 2006 may lead to increased demand for such local construction materials as gravel, limestone, and sand. The outlook for columbium (niobium), gold, nickel, tantalum, and tin depends heavily upon global market conditions and the resolution of political instability. Burundi's domestic market is limited by severe poverty.

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<sup>1</sup>A reference that includes a section mark (§) is found in the Internet Reference Cited section.

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TABLE 1  
BURUNDI: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity		2000	2001	2002	2003	2004
Clays, kaolin		1,500	--	-- <sup>e</sup>	-- <sup>e</sup>	-- <sup>e</sup>
Columbite-tantalite, ore and concentrate:						
Gross weight	kilograms	31,175	122,537	72,441	24,382	23,356
Nb content	do.	NA	NA	NA	4,300	4,100
Ta content	do.	8,200	32,230	14,500	5,769	5,700
Gold, mine output, Au content	do.	--	415	483	2,855	2,900 <sup>e</sup>
Peat		4,088	6,816	6,977	4,580	4,643
Tin, mine output, Sn content		6 <sup>r</sup>	3 <sup>r</sup>	--	5 <sup>r</sup>	10 <sup>e</sup>
Tungsten, mine output, W content		--	--	--	13 <sup>r</sup>	9

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits. NA Not available. <sup>r</sup>Revised. -- Zero.

<sup>1</sup>Includes data available through July 18, 2005.

TABLE 2  
BURUNDI: STRUCTURE OF THE MINERAL INDUSTRY IN 2004

(Metric tons unless otherwise specified)

Commodity	Major operating companies	Location of main facilities	Annual capacity
Cement	Burundi Cement Plant <sup>1</sup>	Bujumbura	20,000.
Columbium (niobium) and tantalum	Comptoirs Miniers de Burundi S.A.	Kayanza and Kirundo Provinces	NA.
Gold	Burundi Mining Corp. <sup>2</sup>	Masaka	18,300 ore processing.
Do. kilograms	do.	do.	33 gold.
Peat	Office National de la Tourbe	Highland Bogs	20,000.
Tin	Artisanal miners	Murehe	NA.
Tungsten	do.	do.	NA.

NA Not available.

<sup>1</sup>Has not operated since 1996.

<sup>2</sup>Not operational in 2004.

TABLE 3  
BURUNDI: MINERAL RESOURCES IN 2004<sup>1</sup>

Commodity	Deposit	Tonnage	Grade	Mineral content
Cobalt, copper, and nickel	Musongati	185 Mt	1.31% Ni; 0.08% Co; 0.17% Cu	2.4 Mt Ni; 150,000 t Co; 310,000 t Cu.
Do.	Nyabikere	46 Mt	1.45% Ni; 0.031% Co; 0.012% Cu	670,000 t Ni; 14,000 t Co; 5,500 t Cu.
Do.	Waga	35 Mt	1.38% Ni; 0.048% Co; 0.028% Cu	480,000 t Ni; 17,000 t Co; 9,800 t Cu.
Gold	Masaka	8 Mt	1.8 g/t	14 t.
Do.	Other deposits in Muyinga Province	NA	NA	45 t.
Kaolin	Vyerwa	16 Mt	NA	NA.
Do.	Matongo	2.7 Mt	NA	NA.
Limestone	do.	1 Mt	NA	NA.
Peat	Akanyuru Valley	NA	NA	36 Mt.

NA Not available.

<sup>1</sup>Abbreviations used in this table for commodities include the following: Co--cobalt; Cu--copper; and Ni--nickel. Abbreviations used in this table for units of measurement include the following: g/t--grams per metric ton; Mt--million metric tons; and t--metric tons.

Sources: Burundi Ministry of Energy and Mines, 1991; Burundi mineral resources—An investment brochure: Bujumbura, Burundi, Burundi Ministry of Mines and Energy, 41 p.

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